

Issue: DeepWater Horizon Incident – EPA Region 6 Response

Background/Status: On April 20, 2010 an explosion and fire occurred at the DeepWater Horizon rig approximately 50 miles SE off the coast of Venice, Louisiana. The rig sunk two days later resulting in the oil spill currently seen in the Gulf. Since April 28th EPA has been actively involved in providing assistance to the Unified Command Structure.

Talking Points

- EPA has deployed dozens of scientists and engineers to the Gulf Coast. EPA is currently assessing the environmental impacts of the spill employing boats in the water, mobile laboratories on the ground (i.e. TAGA), and our ASPECT aircraft.
- EPA has initiated an air monitoring effort to ensure the safety of local residents and track any developing air quality changes. EPA has conducted air monitoring along the Gulf Coast in Louisiana and Mississippi, since May 27, 2010. EPA has found that air quality levels for ozone and particulates are in the normal range for this time of year.
- EPA also has mobilized the Trace Atmospheric Gas Analyzers (TAGA), self-contained mobile laboratories that conduct real-time monitoring of outdoor air or emissions from various environmental sources.
- EPA deployed the ASPECT, a twin engine aircraft designed to assist in the collection of air sampling data as well as photo documentation of environmental incidents.
- Air sampling has been conducted in Chalmette, Grande Isle, and Venice, Louisiana; results of air sampling data have been received from laboratories through May 21, 2010.
- EPA collected pre-impact water samples prior to oil reaching shoreline areas. EPA is aware that oil is present on some beaches and marshes along the coastline and we are collecting samples in or close to these areas. Water samples collected along the Gulf coast through May 21, 2010 have not revealed elevated levels of chemicals usually found in oil. EPA collected pre-impact samples prior to oil reaching shoreline areas. EPA is aware that oil is present on some beaches and marshes along the coastline and we are collecting samples in or close to these areas.
- EPA is collecting sediment samples to identify the potential risks to aquatic life from pollutants in sediment due to the oil spill. The sediment samples collected through May 16, 2010 along the Gulf coast did not reveal elevated levels of chemicals usually found in oil.
- As this oil slick approaches and reaches the shoreline, EPA has been preparing to ramp up its efforts as necessary to respond to a broad range of environmental impacts.

EPA Data Summary As of May 29, 2010

Water samples:

170 water samples collected to date

Sampling for:

Pre-impact conditions, post impact -constituents of petroleum and dispersants

Water summary results:

Water samples collected along the Gulf coast on May 21, 2010 revealed elevated levels of a compound usually found in oil.

EPA's most recent water sampling results found elevated levels of nickel –a chemical usually found in oil. On May 21st, nickel exceeded long term (chronic) threshold levels. At these levels, the chemical may cause risk to aquatic life. The results appear to correlate with the location of the oil reaching the Louisiana coastline.

Air monitoring:

Continuously monitoring since April 29, 2010

Monitoring for:

Particulate Matter, Hydrogen Sulfide (H₂S), Air Toxics, Volatile and Semi Volatile Organic Compounds (VOCs)

Air samples:

704 air samples collected to date

Sampling for:

Outdoor air pollutants associated with, petroleum products, pollutants associated with burning of oil, and chemical dispersants

Air summary results:

EPA's air monitoring conducted through May 27, 2010, has found that air quality levels for ozone and particulates are normal on the Gulf coastline for this time of year. EPA has observed odor-causing pollutants associated with petroleum products along the coastline at low levels. Some of these chemicals may cause short-lived effects like headache, eye, nose and throat irritation, or nausea. People may be able to smell some of these chemicals at levels well below those that would cause short-term health problems.

TAGA bus air monitoring and sampling

Monitoring since May 5, 2010

TAGA monitoring / sampling for:

Air toxics found in crude oil that may evaporate from the spill into the air. The specific toxics are benzene, toluene, and xylene. These are also associated with facilities such as gas stations, oil refineries, paper mills, and autobody shops.

Summary of TAGA results:

Monitoring found that air toxics were not present or were detected at very low levels in the areas monitored along the Gulf Coast and in New Orleans, LA. The levels found were approximately 1000 times less than levels that would cause temporary discomfort, irritation, or other minor effects.

ASPECT air sampling:

Monitoring since April 28, 2010

ASPECT sampling for: air quality impacts associated with in situ burning of oil.

ASPECT analyzes 24 chemical compounds through Fourier transform infrared spectroscopy which include: acetone, acrolein, acrylonitril, ammonia, 1,3 butadiene, chloromethane, ethanol, ethylene, Freon 134a, isobutylene, isopropanol, MAPP, methanol, methyl ethyl ketone, methylene chloride, methyl tert butyl ether, n-butyl acetate, phosgene, and sulfur dioxide

ASPECT summary results: Monitoring found that air toxics were not present or were detected at very low levels in the areas monitored along the Gulf Coast and in New Orleans, LA.